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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/069,080	09/03/2002	Rudolf Krumbholz	199kd02.us	9272
23416	7590	10/30/2003	EXAMINER	
CONNOLLY BOVE LODGE & HUTZ, LLP			THERKORN, ERNEST G	
P O BOX 2207				
WILMINGTON, DE 19899			ART UNIT	PAPER NUMBER

1723

DATE MAILED: 10/30/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/069,080

Applicant(s)

KRUMBHOLZ ET AL.

Examiner

Ernest G. Therkorn

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 September 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

Claims 1-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. "Nonsubcritical and noncritical" are considered to contradict each other. It is not clear how the liquid would be nonsubcritical and noncritical at the same time. The use of "preferably" further renders claims 3 and 4 indefinite. "The use of fluids" further renders claim 13 indefinite

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-13 rejected under 35 U.S.C. 102(B) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Engelhardt (U.S. Patent No. 5,362,895). The claims are considered to read on Engelhardt (U.S. Patent No. 5,362,895). However, if a difference exists between the claims and Engelhardt (U.S. Patent No. 5,362,895), it would reside in optimizing the steps of Engelhardt (U.S. Patent No. 5,362,895). It would have been obvious to optimize the steps of Engelhardt (U.S. Patent No. 5,362,895) to enhance separation.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Engelhardt (U.S. Patent No. 5,362,895) in view of either Brunner (U.S. Patent No. 5,777,141) or Nicoud (U.S. Patent No. 5,422,007). At best, the claim differs from Engelhardt (U.S. Patent No. 5,362,895) in reciting use of a modifier. Brunner (U.S. Patent No. 5,777,141) (column 5, lines 14-20) discloses a modifier may be added to carbon dioxide to act as a cosolvent. Nicoud (U.S. Patent No. 5,422,007) (column 16, lines 46-50) discloses that a modifier may be added to carbon dioxide. It would have been obvious to use a modifier in Engelhardt (U.S. Patent No. 5,362,895) either because Brunner (U.S. Patent No. 5,777,141) (column 5, lines 14-20) discloses a modifier may be added to carbon dioxide to act as a cosolvent or because Nicoud (U.S. Patent No. 5,422,007) (column 16, lines 46-50) discloses that a modifier may be added to carbon dioxide.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Engelhardt (U.S. Patent No. 5,362,895) in view of Snyder, Introduction to Modern Liquid Chromatography, 1979, pages 204-206 and 631-634). At best, the claim differs from Engelhardt (U.S. Patent No. 5,362,895) in reciting a column length of 1.1 to 1.7 meters. Snyder, Introduction to Modern Liquid Chromatography, 1979, pages 204-206 and 631-634) discloses that columns in the range of .1-1.5 meter are conventional and that the longer columns are effective for preparative separations tolerating a large sample volume without a decrease in efficiency. It would have been obvious to use a 1.5 meter column in Engelhardt (U.S. Patent No. 5,362,895) because Snyder, Introduction to Modern Liquid Chromatography, 1979, pages 204-206 and 631-634) discloses that

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columns in the range of .1-1.5 meter are conventional and that the longer columns are effective for preparative separations tolerating a large sample volume without a decrease in efficiency.

Claims 1-13 rejected under 35 U.S.C. 102(B) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over McManigill (European Patent No. 127,926). The claims are considered to read on McManigill (European Patent No. 127,926). However, if a difference exists between the claims and McManigill (European Patent No. 127,926), it would reside in optimizing the steps of McManigill (European Patent No. 127,926). It would have been obvious to optimize the steps of McManigill (European Patent No. 127,926) to enhance separation.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over McManigill (European Patent No. 127,926) in view of either Brunner (U.S. Patent No. 5,777,141) or Nicoud (U.S. Patent No. 5,422,007). At best, the claim differs from McManigill (European Patent No. 127,926) in reciting use of a modifier. Brunner (U.S. Patent No. 5,777,141) (column 5, lines 14-20) discloses a modifier may be added to carbon dioxide to act as a cosolvent. Nicoud (U.S. Patent No. 5,422,007) (column 16, lines 46-50) discloses that a modifier may be added to carbon dioxide. It would have been obvious to use a modifier in McManigill (European Patent No. 127,926) either because Brunner (U.S. Patent No. 5,777,141) (column 5, lines 14-20) discloses a modifier may be added to carbon dioxide to act as a cosolvent or because Nicoud (U.S. Patent No. 5,422,007) (column 16, lines 46-50) discloses that a modifier may be added to carbon dioxide.

Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over McManigill (European Patent No. 127,926) in view of Snyder, Introduction to Modern Liquid Chromatography, 1979, pages 204-206 and 631-634). At best, the claims differ from McManigill (European Patent No. 127,926) in reciting a column length of .25-2.0 meters. Snyder, Introduction to Modern Liquid Chromatography, 1979, pages 204-206 and 631-634) discloses that columns in the range of .1-1.5 meter are conventional and that the longer columns are effective for preparative separations tolerating a large sample volume without a decrease in efficiency. It would have been obvious to use a 1.5 meter column in McManigill (European Patent No. 127,926) because Snyder, Introduction to Modern Liquid Chromatography, 1979, pages 204-206 and 631-634) discloses that columns in the range of .1-1.5 meter are conventional and that the longer columns are effective for preparative separations tolerating a large sample volume without a decrease in efficiency.

Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over McManigill (European Patent No. 127,926) in view of Engelhardt (U.S. Patent No. 5,362,895). At best, the claims differ from McManigill (European Patent No. 127,926) in reciting processing unsaturated fatty acids from natural oils. Engelhardt (U.S. Patent No. 5,362,895) (column 2, lines 16-27 and 36-38) discloses that liquid carbon dioxide used as a mobile separates fatty acids in cod liver, salmon, avocado, and algae oils. It would have been obvious to process natural oils in McManigill (European Patent No. 127,926) because Engelhardt (U.S. Patent No. 5,362,895) (column 2, lines 16-27 and

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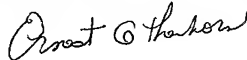
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36-38) discloses that liquid carbon dioxide used as a mobile separates fatty acids in cod liver, salmon, avocado, and algae oils.

**It would be appreciated if applicant submitted a substitute copy of the claims because the current copy of the claims did not scan well.**

Any inquiry concerning this communication should be directed to E. Therhorn at telephone number (703) 308-0362.



**Ernest G. Therhorn  
Primary Examiner  
Art Unit 1723**

EGT  
October 22, 2003